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WATER SUPPLY RELIABILITY & WATER SHORTAGE CONTINGENCY PLANNING

5.1 Water Supply Reliability

Urban Water Management Planning Act Requirement:

10620(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

Water supply reliability includes the pumped groundwater from the Central Basin, the availability of the water purchased through the Central Basin Municipal Water District (CBMWD) and the distribution system that makes up the City of Huntington Park's recycled water supply. Each of these sources is considered to be a reliable water supply to the City. Currently, the City of Huntington Park is not trying to reduce its dependence on imported water from the CBMWD because it is pumping the full allotted rights through the Central Basin adjudication agreement. CBMWD imported water is the most reliable supply available to the City of this reason.

Since a portion of the City Huntington Park's water supply is provided by CBMWD, which in turn is provided through the Metropolitan Water District of Southern California (MWD) and the State Water Project (SWP), the reliability analysis for this water source will be heavily dependent on the reliability analyses of these agencies. Although the City is dependent on these sources to provide a reliable water supply, the City also works with the CBMWD to ensure water reliability in the future. As it is not possible to support the entire water demand through groundwater because of the adjudication agreement, the City of Huntington Park will continue to work with CBMWD to ensure that the necessary improvements are made to ensure a high quality and reliable source of water.

Urban Water Management Planning Act Requirement:

10631(c)(2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

Currently, the only sources of potable water that the City of Huntington Park utilizes are supplier pumped groundwater from the Central Basin and wholesale distributed water through CBMWD. Additional water supplies are obtained by treating wastewater and using it as recycled water for irrigation purposes only.

Table 5.1.1
Factors Resulting in Inconsistency of Supply

Water Supply Sources	Legal	Environmental	Water Quality	Climatic	Additional information
Central Basin Groundwater	✓		✓	✓	N/A
CBMWD Wholesale Water			✓		N/A
Recycled Water			✓		N/A

Units: acre-feet per year

5.1.1 Central Basin Groundwater

Although it is deemed the most reliable and most cost effective water supply source, several factors affect the reliability of the groundwater supply from the Central Basin. Despite these factors, the City of Huntington Park still considers optimizing the use of groundwater from the Central Basin a priority in the future.

Legal

As the Central Basin is adjudicated, it is subject to legal considerations. The amount of groundwater allowed to be pumped is set at a constant rate by the Adjudication Agreement in Appendix F. Although it is not anticipated that total water supplies from the Central Basin will decrease as a result of the adjudication, it is unlikely that they will increase with increasing demand. Therefore, alternative ways to supplement groundwater must be considered, as pumping more from the Basin will be legally restricted.

Water Quality

Groundwater quality from the Central Basin is discussed in Section 5.3 below.

Climatic

Groundwater levels are highly dependent on climate issues such as annual rainfall and average temperature. During dry or wet years, the groundwater levels in the Central Basin are dynamic due to the large number of water retailers that use it as either a sole or majority source of water. Inconsistency in water levels due to drought is a short-term event that can significantly impact the water supply to the City of Huntington Park. Currently the CBMWD, in conjunction with the City of Huntington Park and its other member agencies, has several preventative measures in place to mitigate the effects a drought may have on the overall water supply, including maintaining a groundwater recharge system, surplus capacity, and emergency water connections for imported water. For more information on the effects of a drought, see Section 5.4, which identifies the water reliability during a normal, single dry, and multiple dry years.

5.1.2 CBMWD Wholesale Water

CBMWD identified that its water supply to the City is considered reliable and sufficient to meet demand. However, the reliability of the supply is dependent on the water quality delivered by the SWP to MWD. In general, the SWP quality has been considered good, with delivered water meeting the state threshold requirements. But as seawater intrusion into the Bay-Delta increases, water quality can be diminished. In addition, as water moves through the Bay-Delta, levels of total organic carbon and bromide are likely to increase. Water quality can also be affected by the amount of wastewater that is disposed, as this provides a means for the transportation of salts and pathogens to clean water supplies. To prevent these water quality issues from affecting the overall reliability of supply, water quality analyses are conducted throughout the delivery process and at the water treatment plants to ensure water is safe prior to delivery. Furthermore, state regulatory factors have included biological assessments affecting the amount of water delivered from the Delta to the SWP system to prevent degradation of water quality from the Delta. MWD, CBMWD, and the City of Huntington Park are diligent in identifying poor water quality and acting immediately to ensure it is treated properly to ensure a clean source of potable water. Please see Section 5.3 for more information regarding water quality.

5.1.3 Recycled Water

Recycled Water is treated to the tertiary level, as described in Chapter 4. This water supply is also deemed reliable. Similar to the City of Huntington Park's potable water supply, water quality issues have the potential to impact reliability and threaten the supply of recycled water.

The process of treating and distributing wastewater and recycled water can be hazardous due to harmful bacteria and waste contents in the water. Due to this, the industry must meet water quality standards set forth by regulating agencies. These standards are prone to change as new issues develop; in response to these changing standards, recycled water treatment plants must adapt to the regulations and modify the process as necessary to ensure that water can continually be delivered to its customers. The recycled water system between the Los Angeles County Sanitation District (LACSD), CBMWD, and the City of Huntington Park to deliver recycled water ensures that all aspects of distributing safe and reliable recycled water are met, and that high quality recycled water is delivered to its customers for non-potable use. LACSD is also receptive to any changes that must be made in the treatment or distribution process to ensure compliance with all water quality standards and that water is safe for irrigation use.

5.2 Water Shortage Contingency Planning

Urban Water Management Planning Act Requirement:

10632(c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

Catastrophic failures that put the water supply at risk include fires and earthquakes that could damage the infrastructure to the water distribution system. In the event of a catastrophic event that prevents the City from obtaining water for distribution, CBMWD implements actions and methods to continue supplying water to customers of its member agencies. Water reserves are available to MWD through Diamond Lake, as well as other surface reservoirs, and it is estimated that MWD could provide full supply for up to six months for all of its service areas following a catastrophic event that disrupts the supply of water. In addition, methods to ensure that water is continually supplied to the customers include stockpiling emergency pipeline repair materials and coordinating with the California Emergency Management Agency (Cal EMA) and Emergency Operations Center (EOC) in the event of a catastrophic disruption of supply.

Any effect seen by the CBMWD during a catastrophic event would impact the water supply to the City. As a result, the City is subject to the actions and rationing of CBMWD. During any kind of catastrophic event that disrupts the water supply, including a regional power outage or an earthquake, the City of Huntington Park in conjunction with CBMWD and MWD are prepared to continue providing a reliable source of water.

5.2.1 Regional Power Outage

The City has identified the possibility of a regional power outage and its effect on the water supply. In the event of a regional power outage, the City has backup generators available to ensure that water pumping continues through the wells and pumping stations. In addition, to ensure the imported water supply is made available, MWD has backup generation at its facilities, as well as the ability to employ gravitational flow from regional reservoirs such as Lake Mathews, Castaic Lake, and Silverwood Lake. Mobile generators are also available as needed.

5.2.2 Earthquake

In the event of a catastrophic earthquake, the City can coordinate with MWD and CBMWD to ensure that any damaged lines are repaired as necessary to continue distributing water. In this event, MWD would activate its Emergency Operation Center (EOC) to quickly respond to emergencies and provide emergency services to its customers. The goal of the EOC is to identify leaks and other weaknesses in the system following a catastrophic earthquake, and to quickly isolate the problem in order to reduce wasted water and provide a potable water supply to the population.

With population growth, energy shortages, earthquakes, and the threat of terrorism experienced by California; maintaining the gentle balance between water supply and demand is a complicated task that requires planning and forethought. In the event that a water shortage occurs, simple measures can be implemented to conserve the water supply at a public level. Below, stages are discussed during which various conservation measures will be imposed by the City.

Table 5.2.1 Water Shortage Contingency — Rationing Stages to Address Water Supply Shortages		
Stage No.	Water Supply Conditions	% Shortage
Phase I Shortage	A Phase I Shortage shall be declared when the City determines that future water supplies are uncertain. In this phase, the City requests a 10% voluntary reduction in consumption by residents.	Water supplies are uncertain
Phase II Shortage	A Phase II Shortage shall be declared when the City determines that it is likely that it will suffer a 5% reduction in its water supply.	5%
Phase III Shortage	A Phase III Shortage shall be declared when the City determines that it is likely that it will suffer a 10% reduction in its water supply.	10%
Phase IV Shortage	A Phase IV Shortage shall be declared when the City determines that it is likely that it will suffer a 15% reduction in its water supply.	15%
Phase V Shortage	A Phase V Shortage shall be declared when the City determines that it is likely that it will suffer a 20% reduction in its water supply.	20%
Phase VI Shortage	A Phase VI Shortage shall be declared when the City determines that it is likely that it will suffer a 30% reduction in its water supply, or greater (including 50%).	30% - 50%

Urban Water Management Planning Act Requirement:

10632(d) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.

10632(e) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

In the event of a significant reduction of water supply, the City has several stages of actions to take and policies to implement to minimize the impacts of water shortage, prepare for an increase in shortage, and attempt to conserve water to prevent further shortage. The City has adopted a Mandatory Water Conservation Ordinance, Ordinance No. 513-NS, as part of its Municipal Code. Ordinance No. 513-NS describes the measures to take in the event of a water shortage, including different stages of action corresponding to different levels of drought. The Mandatory Water Conservation Ordinance can be found in Appendix G. Table 5.2.2 provides an overview of the mandatory prohibitions and the consumption reduction methods the City will implement to compensate for the water shortage.

Table 5.2.2
Water Shortage Contingency — Mandatory Prohibitions

Examples of Prohibitions	Phase When Prohibition Becomes Mandatory
Voluntary use reduction	Phase I
95% water use reduction per customer compared to corresponding billing period of the previous year	Phase II
90% water use reduction per customer compared to corresponding billing period of the previous year	Phase III
85% water use reduction per customer compared to corresponding billing period of the previous year	Phase IV
80% water use reduction per customer compared to corresponding billing period of the previous year	Phase V
70% water use reduction per customer compared to corresponding billing period of the previous year	Phase VI
Restrictions on washing of hard paved surfaces	Phase II
Restrictions on washing of mobile equipment	Phase II
Restrictions on filling aesthetic structures	Phase II
Restrictions on drinking water service at restaurants	Phase II
Customers must address plumbing leaks	Phase II
Restrictions on watering, except for commercial nurseries or water dependent industries	Phase II
Restrictions on water runoff	Phase II
Restrictions on watering at commercial nurseries	Phase III
Restrictions on the use of fire hydrants	Phase IV

Phase I Water Supply Shortage (10% voluntary reduction)

When the City declares a Phase I water supply shortage, it is because it anticipates that, due to drought or other events, the City's water supply is uncertain. A Phase I Shortage calls for citizens to voluntarily reduce water consumption by 10%.

Phase II Water Supply Shortage (5% reduction)

The following mandatory water conservation requirements, in addition to the Phase I actions, apply during such time that the Phase II Water Supply Shortage is in effect:

- There shall be no hose washing of sidewalks, walkways, driveways, parking areas or other paved surfaces except as is required for sanitary purposes;
- Washing of motor vehicles, trailers, boats and other types of mobile equipment shall be done only with a hand-held bucket or a hose equipped with a positive shutoff nozzle for

quick rinses, except that washing may be done at the immediate premises of a commercial car wash with reclaimed water;

- No water shall be used to clean, fill or maintain levels in decorative fountains, ponds, lakes or other similar aesthetic structures unless such water is part of a recycling system;
- No restaurant, hotel, cafe, cafeteria or other public place where food is sold, served or offered for sale, shall serve drinking water to any customer unless expressly requested;
- All customers of the City shall promptly repair all leaks from indoor and outdoor plumbing fixtures;
- No lawn, landscape or other turf area shall be watered on days other than Monday, Wednesday and Friday and during the hours between 10:00 a.m. and 4:00 p.m.; except that this provision shall not apply to commercial nurseries or other water-dependent industries;
- No customer of the city shall cause or allow the water to run off landscape areas into adjoining streets, sidewalks or other paved areas due to incorrectly directed or maintained sprinklers or excessive watering.

In addition to the above measures, Ordinance No. 513-NS states that, during a Phase II Shortage, “no customer shall take, cause, use or permit the use of water from the City for any purpose in an amount in excess of ninety-five (95%) percent of the amount used on the customer’s premises during the corresponding billing period during the previous year.”

Phase III Water Supply Shortage (10% reduction)

The following mandatory water conservation requirements, in addition to the Phase II actions, apply during such time that the Phase III Water Supply Shortage is in effect:

- No lawn, landscape or other turf area shall be watered on days other than Monday, Wednesday and Friday and during the hours between 6:00 a.m. and 6:00 p.m.; except that this provision shall not apply to commercial nurseries or other water-dependent industries;
- Commercial nurseries and other water-dependent industries shall be prohibited from watering lawn, landscaping and other turf areas more often than every other day and between the hours of 10:00 a.m. and 4:00 p.m.; except that there shall be no restriction on watering utilizing reclaimed water.

In addition to the above measures, Ordinance No. 513-NS states that, during a Phase III Shortage, “no customer shall take, cause, use or permit the use of water from the City for any purpose in an amount in excess of ninety (90%) percent of the amount used on the customer’s premises during the corresponding billing period during the previous year.”

Phase IV Water Supply Shortage (15% reduction)

The following mandatory water conservation requirements, in addition to the Phase III actions, apply during such time that the Phase IV Water Supply Shortage is in effect:

- No lawn, landscape or other turf area shall be watered at any time, except by bucket; except that this provision shall not apply to commercial nurseries or other water-dependent industries;
- Commercial nurseries and other water-dependent industries shall be prohibited from watering lawn, landscaping and other turf areas more often than every third day and between the hours of 6:00 a.m. and 6:00 p.m.; except that there shall be no restriction on watering utilizing reclaimed water;
- The use of water from fire hydrants shall be limited to fire fighting related activities, and other uses of water for municipal purposes shall be limited to activities necessary to maintain the public health, safety and welfare.

In addition to the above measures, Ordinance No. 513-NS states that, during a Phase IV Shortage, “no customer shall take, cause, use or permit the use of water from the City for any purpose in an amount in excess of eighty-five (85%) percent of the amount used on the customer’s premises during the corresponding billing period during the previous year.”

Phase V Water Supply Shortage (20% reduction)

In addition to the actions to be taken during a Phase IV Water Supply Shortage, Ordinance No. 513-NS states that, during a Phase V Shortage, “no customer shall take, cause, use or permit the use of water from the City for any purpose in an amount in excess of eighty (80%) percent of the amount used on the customer’s premises during the corresponding billing period during the previous year.”

Phase VI Water Supply Shortage (30% reduction)

In addition to the actions to be taken during a Phase V Water Supply Shortage, Ordinance No. 513-NS states that, during a Phase VI Shortage, “no customer shall take, cause, use or permit the use of water from the City for any purpose in an amount in excess of seventy (70%) percent

of the amount used on the customer's premises during the corresponding billing period during the previous year."

Hardship Waiver

During Phase V or VI shortages, Ordinance No. 513-NS includes a hardship waiver. An application for relief may relieve, in whole or in part, from the provisions regarding water use reduction compared to a customer's use during the corresponding billing period of the previous year for a Phase II, III, or IV Shortage.

Water Supply Shortages >30%

Ordinance No. 513-NS specifically outlines measures to be taken during stages that require a 30% reduction in water use within the City of Huntington Park's service area. Per Ordinance No 513-NS, in the event that a shortage threatens supplies such that a greater than 30% reduction is required, "The City may order implementation of water conservation measures in addition to those set forth in [a Phase I, II and III Shortage]."

Since the City of Huntington Park receives its imported water supplies from the CBMWD and MWD, the City is also subject to the Water Shortage Contingency Plans of these Districts. Each District has water rationing stages and a Water Shortage Contingency Plan that specifies the actions to be taken during a water shortage of 50% or greater. In the event that a water shortage becomes severe and a 50% reduction in use is necessary, the City of Huntington Park will comply with the conservation measures as provided by the CBMWD and MWD Water Shortage Contingency Plans. More information on the CBMWD and MWD Water Shortage Contingency Plans can be found in the respective 2010 Urban Water Management Plans of the Districts.

Urban Water Management Planning Act Requirement:
10632(f) Penalties or charges for excessive use, where applicable.

In the case of a water supply shortage, violators of the Mandatory Water Conservation Ordinance can face a maximum of fine of \$500 for a single violation. Table 5.2.3 describes the penalties associated with single and recurring violations, which are outlined in the ordinance. This includes a first warning, and subsequent fines increasing from \$100.

Table 5.2.3		
Water Shortage Contingency — Penalties and Charges		
Violation	Phase When Penalty Takes Effect	Penalty or Charge
First Violation of Water Ordinance	Phase II	Written Warning
Second Violation of Water Ordinance within a 12 Month Period	Phase II	\$100
Third Violation of Water Ordinance within a 12 Month Period	Phase II	\$200
Fourth Violation of Water Ordinance within a 12 Month Period	Phase II	\$500

In addition, if a customer fails to meet the water use reduction target of a Phase II-VI Water Shortage, as compared to a customer's use during the corresponding billing period of the previous year, per Ordinance No. 513-NS, "a surcharge will be imposed in an amount equal to 200 percent of the portions of the water bill that exceeds the respective percentage set in those five [phases]."

Urban Water Management Planning Act Requirement:

10632(g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f) inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

During a water shortage, revenue is expected to decrease due to a reduction in water sales. Furthermore, expenditures would be expected to increase due to the necessary marketing of water conservation methods to reduce water use. In the event that expenditures significantly outweigh revenue, the City has an emergency fund that could be used to provide funds; however, these funds would need to be replenished through additional water sales following any kind of emergency situation. The City also has the authority to increase water use rates during times of drought. The results of this would be two-fold: bringing in additional revenue with similar sales while simultaneously discouraging water waste. These options allow the City to respond quickly to funding issues accompanied with a drought situation.

Urban Water Management Planning Act Requirement:
10632(h) A draft water shortage contingency resolution or ordinance.

The draft Water Conservation Ordinance, which describes the actions to be taken in case of a water shortage, can be found in Appendix G.

5.3 Water Quality

Urban Water Management Planning Act Requirement:
10634 The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects urban water management strategies and supply reliability.

Each source of water for the City of Huntington Park presents its own, unique water quality issues. These issues are presented below.

5.3.1 Central Basin Groundwater

Groundwater supplied by the Central Basin has historically had good water quality. However, a few challenges to maintaining a high quality groundwater source have been identified by the CBMWD. Specifically, levels of the chemicals Perchlorate and Manganese have been observed above the Maximum Contaminant Level (MCL) in the wells, requiring that extra treatment must be completed at the well head to prevent distribution of poor quality water. In addition, the City of Huntington Park performs water tests to ensure that water quality is met and contaminant and bacteria presence are acceptable and the CBMWD conducts its own water quality tests and monitoring of the wells to ensure that water is acceptable for delivery within its service area, as well as its purveyor's service areas.

Perchlorate

Of particular interest to the CBMWD is the contamination of perchlorate, a component in solid rocket fuels, which has been detected in several wells. In the 1950s and 1960s, experimentation with solid rocket fuels in the Southern California area was prevalent. Since then, perchlorate has seeped into the groundwater, and migrated to the Central Basin.

Perchlorate has been detected at several wells throughout the Central Basin; when a well is contaminated with perchlorate, it is generally shutdown due to the difficulty of removing this chemical. Perchlorate has not been observed above contamination levels in the City of Huntington Park. However, in the event that it was detected, the option to mix the contaminated water with that of lower perchlorate levels to reduce the concentration is available to achieve safe potable water.

As of 2010, the CBMWD identified that only nine wells within its service area had perchlorate levels above the threshold 6 ppb. In January 2011, the California Office of Environmental Health Hazard Assessment (OEHHA) released a draft public health goal (PHG) of 1 part per billion (ppb), reduced from 6 ppb, for perchlorate in drinking water, further emphasizing the importance treating the water contaminated with perchlorates.

Manganese

Elevated levels of manganese have been noted throughout the Central Basin. Currently, the MCL set by the California Department of Public Health was updated in 2003 to be 0.5 ppm. Although levels exceeding this value have been noted in the past, the City of Huntington Park maintains its well treatment system to ensure that all water quality standards are met before potable water is distributed to the population. The 2009 Water Quality Report did not identify any issues with Manganese from the City of Huntington Park's wells.

5.3.2 CBMWD Wholesale Water

The water quality issues associated with the water supply to the City are the same as quality issues experienced by CBMWD, and similar to those experienced by MWD. MWD has identified threats to the water quality of water supplied through the Colorado River and the State Water Project. MWD reports that increased salinity and chemicals (i.e. chromium VI, etc.) in the water it is supplied with, as a theoretical water quality event, will cause at most a 15% reduction in supply. However, MWD also noted if concentrations of these contaminants exceed the potable water quality threshold, tactics such as utilizing only small amounts of the affected water and blending it with potable, processed water would reduce the concentration to treatable and acceptable levels. The MWD has stated that it "anticipates no significant reductions in water supply availability from [the Colorado River, State Water Project, and local groundwater] sources due to water quality concerns over the study period."

The City realizes the importance of constantly assuring that the water it distributes meets potable water stands. Although there are no water quality issues that immediately threaten the supply to the City's customers, the City maintains knowledge of water quality issues to prevent water of poor quality from being distributed. Following are a description of the most pertinent

issues of concern, due to either historically increasing levels (water salinity) or threshold reductions (Chromium VI).

Salinity

Increased salinity in the water received from the Colorado River has required MWD to utilize one of the tactics described above: blending SWP water with Colorado River water to reduce the overall salinity concentration. Although this has not caused water supply shortages, if salinity levels continue to increase, additional membrane treatment of water from the Colorado River may be required. This will slow the water purification process down, and could result in up to a 15% reduction in water supply.

To prevent a reduction in supply, MWD has established a Salinity Management Policy, which sets the goal of delivering water with less than 500 mg/L of total dissolved solids (TDS). Generally, this has caused issues with only the Colorado River; the SWP has historically been observed to have significantly lower salinity levels.

Chromium VI (Hexavalent Chromium)

While currently there is no drinking water standard for Chromium VI, the OEHHA established a draft PHG for chromium VI in drinking water. The draft proposes a PHG of 0.02 pbb Chromium VI in drinking water. However, the development of the PHG is indicative of future potential standards for drinking water. MWD utilizes analytical testing to ensure that Chromium VI levels do not exceed the current standard. In the event that the Chromium VI standards are reduced, MWD would not have to change its testing method, as the current minimum threshold for its analytical testing is below the proposed concentration threshold.

MWD records of Chromium VI content reveal that, if more stringent goals are implemented, additional treatment of SWP water may be required as levels have historically been noted to exceed the proposed PHG. The draft released by OEHHA on December, 31 2010 states that the PHG of 0.02 pbb is intended to be a “stringent health-protective goal” as opposed to a “maximum ‘safe’ level of chromium 6 in drinking water.” In contrast to SWP water, water from the Colorado River has historically been recorded as generally having undetectable levels of Chromium IV.

Table 5.3.1 indicates the potential impacts of water quality on the City’s water supply, as identified by CBMWD and MWD.

5.3.3 Recycled Water

In addition to affecting the potable water supply, similar water quality issues also affect the recycled water supply. High levels of contaminants (e.g. TDS) in wastewater may require

additional treatment to ensure that safe and reliable recycled is delivered to its users. Since recycled water is used primarily for irrigational purposes within the service area of both the City of Huntington Park and the CBMWD, the main effect of poor quality recycled water would be on crop and plant yields. High levels of salinity in the recycled water can be harmful to plant life and could prevent growth. If this were to occur, additional and more expensive wastewater treatment may be necessary.

The LACSD does not anticipate any issues with recycled water quality. The LACSD constantly monitors the water quality of the recycled water sold to end users to ensure that it meets all standards. Furthermore, the stringent salinity requirements, and other water quality standards for potable water being delivered to customers further reduces the likelihood that poor quality recycled water will be delivered. The City of Huntington Park does not anticipate having any issues with recycled water quality that would be harmful, or in any way cause an increase in potable water use.

Table 5.3.1 summarizes the expected impacts of water quality on the reliability of water supply.

Table 5.3.1						
Water Quality — Current and Projected Water Supply Impacts						
Water source	Description of condition	2010	2015	2020	2025	2030
Central Basin	No water quality issues expected	0	0	0	0	0
CBMWD Potable Water	No water quality issues expected	0	0	0	0	0
CBMWD Recycled Water	No water quality issues expected	0	0	0	0	0

Units: acre-feet per year

5.4 Drought Planning

Urban Water Management Planning Act Requirement:

10631(c)(1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following: (A) an average water year, (B) a single dry water year, (C) multiple dry water years.

All potable water supplies are pumped from the Central Basin or provided through the CBMWD as part of MWD and the SWP. The groundwater supply is available based on the ability of the City of Huntington Park to pump the fully allotted amount through the Central Basin adjudication (the City is expected to be able to pump its fully allotted rights of 3,853 AF by 2015). Since the additional purchased supply is not directly obtained by the City, the determination of reliability is largely be based on CBMWD and MWD analyses to provide a consistent water supply to the City during normal, single dry, and multiple dry years. During these years, the City of Huntington Park is committed to reducing water demand during times of drought in order to conserve water and improve reliability for future water supplies.

Table 5.4.1 identifies the normal, single dry, and multiple dry water years chosen to represent the water supply from CBMWD:

Table 5.4.1	
Basis of Water Year Data	
Water Year Type	Base Year(s)
Average Water Year	2010
Single-Dry Water Year	2006
Multiple-Dry Water Years	2006-2008

During these years, the percent of supply that was available to the public for use is summarized in Table 5.4.2. Table 5.4.2 represents the total water available through the CBMWD, as reported in the 2010 Urban Water Management Plan.

Table 5.4.2				
Supply Reliability — Historic Conditions				
Average / Normal Water Year	Single Dry Water Year	Multiple Dry Water Years		
		Year 1	Year 2	Year 3
268,173	270,360	270,360	261,100	254,150
Percent of Average/Normal Year:	101%	101%	97%	95%

In the single dry water year, demand increased and therefore more water was supplied to meet the demand due to increased temperatures, evapotranspiration rates, and a longer growing season. Throughout these years, the supply available from the Central Basin was assumed to remain consistent, regardless of the water years. Although this results in using more water than is naturally replenished during these years, water reserves are available to provide a reliable source of water in the event of another single dry year with similar hydrology. The only varying source is water available through the MWD. However, the MWD 2010 UWMP estimated that it would be able to meet all demands during normal, single dry, and multiple dry year scenarios in the next 25 years.

Urban Water Management Planning Act Requirement:

10632(a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.

In the event of a water supply shortage, the City has in place several stages of action to take. These are listed above in the Water Shortage Contingency Plan Section.

Urban Water Management Planning Act Requirement:

10632(b) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.

The table on the following page shows the minimum water supply available during the next three years with a multiple year hydrology as defined by the 2006-2008 water years. It can be seen that water supplies for the next three years with multiple dry year hydrology are expected to be able to meet 100% of the demand for the City as identified by its water suppliers, CBMWD and MWD. Table 5.4.3 shows the supplies available to the City of Huntington Park in the event that the next three years had the same hydrologic conditions as the multiple dry year scenario identified. It should be noted that these numbers represent the full pumping capacity of the City, up to the volume limited by the adjudication. Due to the high quality and high reliability (resulting from the large pumping capacity) it is anticipated that City will be able to pump this amount.

Table 5.4.3				
Supply Reliability — Current Water Sources				
Water supply sources	Average / Normal Water Year Supply	Multiple Dry Water Year (2006)	Multiple Dry Water Year (2007)	Multiple Dry Water Year (2008)
		Year 2011	Year 2012	Year 2013
Central Basin Groundwater	3,853	3,853	3,853	3,853
CBMWD Wholesale Water	2,097	2,118	2,034	1,992
Percent of normal year:	100%	100%	99%	98%

Units: acre-feet per year

Although the supplies are great enough to be met for the next three years in the event of a drought, continuing to consume such quantities from the water supply may outweigh the water replenished through natural processes in the distribution chain. This could potentially result negative consequences, including overdraft conditions of the groundwater basins. To prevent this from happening, the City of Huntington park is among the many water retailers in California committed to preserving water supplies. In the event of a single dry or multiple dry year scenarios, the City would reduce demand by implementing the water conservation measures described above in the Water Shortage Contingency Plan Section. This, in conjunction with the demand management measures in place, emphasizes the importance of water conservation to the City of Huntington Park and its water customers.

Table 5.4.3 does not identify the source of recycled water as varying water source. Although this will have minimal impact on the overall reliability since it is such a small portion of the overall supply/demand for the City of Huntington Park, it is still assumed to remain as a constant supply, as wastewater will still be available during drought years to be treated to recycled water standards and distributed through the LACSD service area. Recycled water is additionally accounted for in the following tables to compare the supply and demand during normal, single dry, and multiple dry year scenarios. The data regarding total demand and supply, including recycled water, is documented in Chapters 3 and 4, respectively.

Urban Water Management Planning Act Requirement:

10632(i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

The City can monitor production at its wells to determine the amount of water being sent into the system. In addition, individual meters on water customers indicate the total water being sold. For water received through CBMWD, monthly deliveries can be monitored as well. In addition, water meters on customer accounts can indicate the total water demand during water shortages. Trends in this demand can indicate impacts of water use reduction measures. Under normal water supply conditions, potable water production figures are recorded daily. Totals are logged, reported monthly and incorporated into the water supply report.

During a water shortage monitoring is increased. Daily production figures are reported to the responsible parties to ensure that water conservation goals are being met. As the severity of the drought increases, the number of parties responsible for the monitoring and enforcement of water distribution figures may increase to include the General Manager and Water Supervisor.

Urban Water Management Planning Act Requirement:

10635(a) Every urban water management supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

The following tables, 5.4.4 through 5.4.6, compare the total supply and demand as identified in Chapters 3 and 4 for normal, single dry, and multiple dry years. It can be seen that the supply available to the City, as estimated based on groundwater pumping and as provided in the CBMWD and MWD 2010 Urban Water Management Plans, meets the total demand, including during multiple dry year scenarios. However, the City of Huntington Park is still committed to water conservation in single dry and multiple dry years to help preserve precious water reserves and supplies.

The data provided for the normal, single dry, and multiple dry year scenarios is provided in the supply portion of the CBMWD 2010 Urban Water Management Plan. The plan identifies that during a single dry year scenario, demand may increase by approximately 2% over a normal year. CBMWD identified that supply was sufficient in a single dry year to meet this increased demand. During a multiple dry year, it was identified that the demand may increase by anywhere from 2% in the first year to 5% in the third year. However, these demand increases may not actually be seen during multiple dry year scenarios due to conservation measures that will be enacted. This potentially will leave the demand consistent with a normal water year. Conservation measures may offset the predicted increase in demand over a multiple dry year period. CBMWD did not identify any reliability issues with delivering water during a single or multiple dry year period, and identified that supply would be sufficient to meet demand.

Table 5.4.4				
Supply and Demand Comparison — Normal Year				
	2015	2020	2025	2030
Supply Totals	6,001	6,139	6,280	6,424
Demand Totals	6,001	6,139	6,280	6,424
Difference	0	0	0	0
Difference as % Of Supply	0%	0%	0%	0%
Difference as % Of Demand	0%	0%	0%	0%

Units are in acre-feet per year.

During a normal year, it can be seen that the City of Huntington Park will pump the water available through the City's allocated pumping rights, and the remainder will be supplied, as necessary through the CBMWD.

Table 5.4.5				
Supply and Demand Comparison — Single Dry Year				
	2015	2020	2025	2030
Supply Totals	6,022	6,161	6,304	6,449
Demand Totals	6,121	6,262	6,406	6,552
Difference	(99)	(100)	(102)	(103)
Difference as % of Supply	-2%	-2%	-2%	-2%
Difference as % of Demand	-2%	-2%	-2%	-2%

Units are in acre-feet per year.

The demand in a single dry year was estimated to increase by approximately 2%. During a single dry year, the worst-case scenario of experiencing another severe drought would leave the with a 2% water deficit. In this event, CBMWD and MWD can provide additional surplus supplies to the City to meet demands, where necessary. However, in the event of a water shortage, measures outlined in the Water Shortage Contingency Plan will be implemented to reduce demand and prevent the need to tap additional surplus.

Table 5.4.6					
Supply and Demand Comparison — Multiple Dry-Year Events					
		2015	2020	2025	2030
Multiple-dry year first year supply	Supply Totals	6,022	6,161	6,304	6,449
	Demand Totals	6,121	6,262	6,406	6,552
	Difference	(99)	(100)	(102)	(103)
	Difference as % of Supply	-2%	-2%	-2%	-2%
	Difference as % of Demand	-2%	-2%	-2%	-2%
Multiple-dry year second year supply	Supply Totals	5,938	6,072	6,209	6,348
	Demand Totals	6,211	6,354	6,500	6,649
	Difference	(273)	(282)	(291)	(300)
	Difference as % of Supply	-5%	-5%	-5%	-5%
	Difference as % of Demand	-5%	-5%	-5%	-5%
Multiple-dry year third year supply	Supply Totals	5,896	6,027	6,161	6,298
	Demand Totals	6,301	6,446	6,594	6,745
	Difference	(405)	(419)	(433)	(447)
	Difference as % of Supply	-7%	-7%	-7%	-7%
	Difference as % of Demand	-7%	-7%	-7%	-7%

Units are in acre-feet per year.

During a multiple dry year scenario with hydrology similar to that of 2006-2008, it is anticipated that, based on the supplies outlined in Chapter 4, the City would be unable to meet the demand. However, during these years, not only can the City enact water reduction measures listed above, it is also possible that the City will be able to purchase additional water through the MWD and CBMWD. The MWD plan has identified a surplus supply available for Southern California water retailers and their populations. Although undesirable, it is possible to tap into these additional water supplies when necessary, and provide additional water to the retailers that have demands higher than original supplies could meet. The MWD has identified in its

2010 UWMP that it will be able to meet all demands for its water purveyors through the next 20 years, with a surplus available for additional supplies. In the event of a multiple dry year drought that has the “worst-case” effects listed above (i.e. the worst drought the region has experienced) the City of Huntington Park will work closely with the CBMWD, MWD, and other water retailers to ensure that quality water is available for the population.